Research
Bulletin
793

-:-

September
1957

The Part-Time Route To Full-Time Farming

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THE PART-TIME ROUTE TO FULL-TIME FARMING

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SUMMARY AND CONCLUSIONS

1. How effective is part-time farming as a method of getting established in full-time farming? Information bearing on this question was obtained by interviews with farm families who were using or had used nonfarm employment to get established in commercial farming. Several factors were taken into account because of their possible influence on intentions and accomplishments.

2. In most families aspiring to farm on a commercial scale either the husband or wife or both were farm reared although frequently the family reported having moved to the present farm from an urban residence. Education of operators ranged from about fifth grade to more than four years in college and averaged three years in high school. Nonfarm earnings rose with the level of education; farm earnings remained fairly constant, but were below average for those with only grade school training.

3. Size of family had no definite relationship to the size of farming operations or to when the change was made to full-time farming. Operators who had made limited progress in building up a farm business averaged as old (40 years) as operators with more progress; those who had gone to full-time farming averaged the youngest of all (36 years). One clue to this difference in experience is the amount of land owned and rented and the use of it.

4. Most cases studied owned part or all of the land they operated. The average operator was 32 years old when the land was purchased.

5. Credit was used by nearly all to purchase land and for other purposes. Present full-time operators had the largest outstanding debt. But many operators were continuing the nonfarm employment until debt was reduced.

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[1]A report on one phase of O A.E.S Project, Hatch 112 (NC-15), entitled: Economic and Social Aspects of Part-time Farming in Ohio.

The basic data used in this bulletin is the same as that presented in more detail in the following doctoral dissertation: Wayt, William Allen; Part-Time Farming in Ohio with Special Reference to its use as a Route to Full-Time Farming; The Ohio State University, 1956.

6. The cases studied were about evenly divided among the three generalized types of farming areas in Ohio. Part-time farmers tend to follow about the same combination of enterprises as full-time farmers in the same area, with slightly less intensity particularly in the development of livestock enterprises. In respect to developing a farm business through the part-time route about the same problems and degree of accomplishment existed in each of the three areas.

7. Value of agricultural assets, financial position and several other measures of the size of farming operation were used as indicators of progress toward full-time farming. For comparisons the cases studied were separated, by scale of farming operations, into four groups still operating part-time and a fifth group farming full-time.

The average family in all five groups had accumulated enough capital to farm full-time at least as tenants or part-owners, if all resources were fully utilized for that purpose. While those farming full-time had more property, they also had more debt. Difference in net worth alone could not explain why so many had deferred starting to farm full-time.

Groups (1) and (2) had insufficient crop land to farm full-time; the other three groups had enough. Also, in terms of man-days of productive labor most operators in groups (3), (4), and (5) had a size of business nearly or fully adequate for full-time farming; but groups (3) and (4) had low gross farm receipts.

A more critical measure is net farm income. After deduction of expenses, only group (5) had enough for family living without relying heavily on outside employment.

It is suggested that the principal reason why more had not gone to full-time farming is the difficulty of building up a sufficiently profitable farm business while still holding nonfarm employment. Many have trouble bridging over this gap in income. A feature which compounds this difficulty is that as operators built up the size of farm business their average nonfarm earnings declined leaving no net gain in expendable income.

8. The foregoing supports the conclusion that most operators who do graduate to full-time farming do so from reasons that are partly non-economic— a strong desire to farm, attitude toward the nonfarm jobs, better long range planning and singleness of purpose, perhaps a willingness to sacrifice some income if necessary, family attitudes and cooperation, and in some cases the physical energy and capacity for management necessary to build up the farm business without an offsetting sacrifice in nonfarm income. It is significant that the operators who had graduated to full-time farming had above average crop yields and milk sales per cow.

From a current income viewpoint the more expedient and easier course for many is to continue the nonfarm job and to defer the plan to farm full-time more or less indefinitely.

Findings in this study reflect the price and income relationships—farm and nonfarm—prevailing in a period ending in 1954. Relative advantages since then (to the date of this publication) would be even less favorable, income wise, to the change from part-time to full-time farming.

INTRODUCTION

This bulletin is a report on the use of part-time farming as a method of getting established in full-time farming. Circumstances prevailing in recent years, particularly in an area like Ohio, have encouraged country-minded people to take nonfarm employment and at the same time keep one foot on the land.

A substantial share of these have full-time commercial farming as the ultimate goal. To these, at least in their original planning, the nonfarm job is a temporary expedient to accumulate capital and to augment the family income during the period when the farm business is still inadequate. A question: is this a satisfactory way to accumulate capital and build up a full-time farm business? An answer is sought both in the experiences of former part-time farmers who are now farming full-time, and in the present situation of those families currently dividing their time and energy between farming and some other employment.

This study is thus designed to provide information to those individuals considering this route to full-time farming. It should be of value to vocational agriculture teachers, county agents, and others in the position of advisor to prospective young part-time farm operators.

SOME DEFINITIONS

For purposes of this study, particularly as a guide to interviewing farm families, the following definitions were applied.

A Farm. A tract of land containing three or more acres used for agricultural purposes.

Part-Time Farmer. A farm operator who personally spent 100 days or more in nonfarm employment during the year preceding the interview; and further provided that the functions of labor and management by the operator were not replaced by someone working for him under a wage or rental contract.

Established in Commercial Farming. For purposes of this study a family was considered as "established" when it had command of enough land and capital to farm on a scale falling within the range typical of full-time commercial farming in the locality. As a practical matter there are many degrees of being established—primarily degrees of security, permanency, and size of business. As will be developed later, this concept must be a flexible one as it actually applies to when particular families graduate to full-time farming.

METHOD OF STUDY

Information was obtained by interviewing families who were or who had been engaged in part-time farming.

One group of interviews included all part-time farmers (as defined above) located in 83 square mile areas distributed through 14 Ohio counties. This general sample provided an insight into the accomplishments and characteristics of families with full-time farming as their objective as compared with a cross section of all part-time farmers.[2]

A second series of interviews was based on a random sample in four counties of all farmers up to 50 years of age who had "established" themselves, on an acreage typical of full-time commercial farming in their area, by the part-time route.

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[2]This general sample was taken in the process of studying the economic and social aspects of part-time farming which are to be reported on in another publication. The present publication draws on this general sample only as it relates to getting established in full-time farming. The counties selected to provide representation of the three generalized types of farming areas were: Lake, Trumbull, and Morrow from the Northeastern dairy area; Belmont, Fairfield, Licking, Monroe, Morgan, and Washington, from the Southeastern general farming area; Champaign, Paulding, Preble, Warren, and Wood from the Western corn belt area.

In 1949 these 14 counties contained 17 percent of all farms in Ohio and 17.3 percent of all operators reporting 100 or more days work off the farm. In these 14 counties the proportion of all operators reporting such off-farm work was 32.3 percent compared with 31.9 percent for the State as a whole.

Within counties all households resident within square mile areas located at intervals of two miles (usually starting with the first open country square mile north of the county seat and continuing diagonally northeast to the county line) were classified, and those meeting the definition of a part-time farmer were interviewed.

OBJECTIVES OF PART-TIME FARMERS

In the 83 sample square miles 251 families were located who were classed as part-time farmers. A statement was obtained from 244 of these as to their future plans in respect to farming. The responses indicated some relationship between future plans and acreage operated.

The figures below indicate that more than 40 percent of the families interviewed planned to farm full-time sooner or later. But 12 percent intended to do so on a small scale after retirement and not as the main goal during the more active years of gainful employment. These operated an average of 67 acres. The other 28 percent viewed their nonfarm employment as a stepping stone to full-time farming on a commercial scale. These operated an average of 100 acres.

	Number	Percent of cases	Average acres operated
Plan to:			
Continue part-time farming	93	38.1	60
Move to town (or other residence)	13	5.3	78
Farm full-time	69	28.3	100
Retire and farm	30	12.3	67
Quit farming, live here	39	16.0	27
	244	100.0	68

Not all of the 28 percent who wanted to become full-time commercial farmers had accumulated enough land and capital to demonstrate that they probably could succeed. Leaving out these more doubtful cases, 55 (22 percent), were classed as having made "progress" toward their goal of full-time commercial farming. They were operating an average of 116 acres.

Some characteristics and circumstances of these 55 cases will be described because they represent a cross-section of a group meeting two qualifications: (1) so far as could be determined, they had serious intentions to become full-time farmers (as contrasted with wishful thinking); (2) they have made enough progress in farming to demonstrate the likelihood of succeeding. Actually some had already achieved a size of business considered typical of the average full-time commercial family farm.

But the number was too few to satisfactorily demonstrate the use of part-time farming as a stepping stone to full-time farming. Also, at least some cases should be studied where the last step to full-time farming had been taken. Are many operators actually making this last step?

What in their experience may be useful to others in evaluating the advantages and limitations involved in this method of getting established in commercial farming?

To answer the above questions more fully a systematic inquiry was made in four counties (Ashland, Licking, Perry, and Union). A total of 433 farmers were located who met the following requirements:

(1) They were farming an acreage at least equal to the minimum of full-time commercial farms in the area.
(2) They had combined farming with nonfarm employment to get established.
(3) They either had graduated to full-time farming or were in a position to do so in the near future.

METHOD OF SAMPLING IN FOUR COUNTIES

Of the four counties, Ashland was selected as representative of the Northeastern dairy area; Perry, of the Southeastern general farming area; and Union, of the corn belt area. (The 55 cases considered from the general sample, also are reported in terms of these three generalized types of farming areas.) Licking, being transitional, was divided between the three areas.

By contact with local people acquainted with the residents of each township, every active farmer, age 50 or less,[3] was located who had used part-time farming to establish himself on a scale of operation considered to be typical of full-time commercial farming in the area.[4] Then a random sample was drawn of approximately 15 farmers per county for personal interview.[5] A total of 62 records was assembled; of these, 44 operators were still farming part-time and 18 full-time when interviewed in 1954.

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[3]Operators more than 50 years old were included providing they had become full-time farmers when aged 50 or younger.

[4]In selecting these operators an arbitrary minimum acreage was specified below which the farm was not to be considered as representative of a full-time commercial farm. These arbitrary minimums were: 80 acres for Northeastern and Western Ohio; 100 acres for Southeastern Ohio. However, after random sample was selected a schedule was taken on every farm operated full-time regardless of acreage operated, at the time. In three cases the farmer was found to be operating less acreage in 1954 than the above designated minimums. The number of farms in the sample were: Ashland, 133; Licking, 108; Perry, 95; Union, 87. This totals 433 cases, equal to eight percent of the 5,396 farms of 70 acres and over in these four counties (1954 census).

[5]The random four-county sample was supplemented by a total of five cases contacted by chance when making the general part-time farming survey in 14 counties. Three of these were in Trumbull (Northeast Ohio), one was in Warren and one in Wood County (Western Ohio).

WHEN ARE PEOPLE "ESTABLISHED" IN FARMING?

Let us look at the concept of "established" in two ways. First, for purposes of this study a family was considered "established" in commercial farming when it had enough land and capital at its command to operate on a certain minimum scale or larger. (See footnote 4). On the other hand, "established" implies a degree of security which certainly varies with every family and with the same family from time to time.

In the process of getting established in commercial farming by the part-time route, families advance through four stages. Over-simplified, these are:

(1) A preliminary stage of accumulating some capital through family earnings, inheritance and gift and gaining access to sources of credit.

(2) Obtaining command over the necessary land resources to start farming on some scale, large or small. As will be observed, with part-time farmers this is usually accomplished by the purchase of land and to a lesser degree by renting.

(3) Improving the financial position, making needed farm improvements, accumulation of the necessary machinery, equipment and livestock to farm on a part-time basis.

(4) Enlarging the farm business enough to be independent of outside employment.

In point of time no sharp lines can be drawn between these four stages. Progress in all may come concurrently. On the other hand, some people planning to farm full-time have passed through all these stages and others have paused at some point short of the fourth. Why?

As applied to the present study, the changes in the farm price and income situation between the time that families were interviewed and publication of the results may have changed the outlook for many families. Particularly, the chances are that some have postponed the date when they will start to farm full-time.

FACTORS CONSIDERED IMPORTANT

What circumstances may relate to success in using part-time farming as a stepping stone to full-time farming? It is not possible to describe or evaluate all. Perhaps some of the less obvious but important factors were not taken into account. Following are some of the things considered in this study.

(1) **Family characteristics.** Age of the operator and age, number, and sex of the other persons in the household are measures of the potential labor supply available for farm work. Also, unless the operator has made progress before middle age, the question can be raised as to the efficiency of this method of getting established in full-time farming.

(2) **Background of husband and wife.** Was the husband and/or wife reared on a farm, or elsewhere? Both intentions and accomplishments probably are influenced by early background and education.

(3) **The nonfarm job.** What kind of employment? Number of days worked per year, hours worked per day, length of employment, distance to work, travel time involved, and earnings—these are some of the things considered important in respect to the off-farm work. Do the requirements of the nonfarm job leave sufficient time and energy to operate a profitable farm business?

(4) **Land resources.** What acreage can part-time farmers operate to advantage? Are they getting control of it through ownership or renting? What part does inheritance or family assistance play in this process? At what age do they acquire land?

(5) **Use of credit.** This is another conditioning factor. To what extent is credit used? On what terms? Obtained from what sources? Used for what purposes?

(6) **Size of business.** Control over land resources is an indication of potential size of business. But other measures are needed. More concrete measures are: crop acres, amount of livestock kept, gross sales and productive days of labor provided by the farm business. A still better measure, if accurately determined, is the net receipts. But more difficulty was involved in determining net receipts because at least some expenses had to be estimated.

(7) **Rate of capital accumulation.** How fast do part-time farmers increase their net worth? When obtainable, this is a good measure of financial progress. The limitations encountered in applying it in this study were: determination of assets when beginning part-time farming, estimation of present dollar value of assets, the influence of price inflation, the importance of inheritance and gifts received at various stages.

(8) **Home conveniences.** The home conveniences possessed by a family and condition of the dwelling provide some indication of whether or not expenditures for the home and family living are curtailed in order to accelerate capital accumulation to get established in the business of farming.

Next, the above mentioned topics will be discussed as they relate to 55 families who were classed as having made "progress" toward full-time farming and to 62 families who, as measured by land and capital, now have the resources to farm full-time.

SOME BACKGROUND CHARACTERISTICS

Tables 1 and 2 provide some general background which helps describe two groups of operators and their families:

(1) the group of 55 taken from the general sampling of part-time farmers and rated as having made "progress" toward full-time farming;

(2) the group of 62 rated as "established" on a scale considered typical of full-time farming in their respective localities.

Some characteristics tend to vary with the type of farming area; so, each group is subdivided into N.E., S.E., and Western Ohio subgroups.

Age of Operator and Size of Household. The figures provided in Table 1 serve to illustrate the rather wide range in age of part-time operators who plan to farm full-time. The same is true of size of family. Of particular significance is the fact that more than half the operators in the group rated as having made "progress" were more than 40 years of age. Some had reached an age where relatively few active years remained. Of the 62 operators rated as "established" the average age was 37.6 years at the time of interview. Eighteen of these now farming full-time started to do so at an age ranging from 25 up to 48 years and at an average age of 36 years. Only half of the 18 started to farm full-time when less than 35 years of age.

Circumstances considered later support the view that some delayed taking the last step to full-time farming because of choice and evaluation of alternative opportunity rather than necessity.

Size of household of both groups averaged a little larger than the average of all Ohio farm families (3.73 persons in 1950). This could be expected because the families interviewed were in the child rearing age bracket. Size of household had a very indefinite relationship to the size of farming operations in individual cases.

TABLE 1.—Age of Operator and Size of Household, Specified Groups Part-time and Full-time Farmers, by Area, Ohio, 1954

Area	Cases (No.)	Age of operator (Years)		Size of household (No.)				Other members*
						Children		
		Average	Range	Average	Range	Male	Female	
	55 farmers rated "progress" toward full-time farming							
N.E. Ohio	16	43.0	25-55	4.2	2-9	15	15	5
S.E. Ohio	19	41.0	33-55	4.9	2-6	21	31	5
W. Ohio	20	43.0	25-55	3.8	2-6	22	13	1
Total or Average	55	42 0	25-55	4.3	2-9	58	59	11
	62 farmers rated ' established							
N.E Ohio	21	38.2	26-50	4.5	2-7	21	30	3
S E. Ohio	18	38.8	21-48	4.5	2-7	21	30	0
W. Ohio	23	36.0	29-51	4.4	2-8	38	18	0
Total or Average	62	37.6	21-51	4.5	2-8	83	70	3

*Adults in household in addition to husband and wife.

Schooling and Place Reared. Years of school completed ranged from about fifth grade to more than four years of college (Table 2). The average was about three years of high school for operators, a little more for wives. The important point is that these part-time farmers represent a fairly complete cross-section of the total population in respect to education. Nonfarm earnings tended to be highest for those with the most education. Farm earnings were about the same regardless of years of schooling beyond the elementary level. The number of years of schooling reported was less for the farm reared operators than those with nonfarm background.

Most part-time farmers and their wives in both groups were farm reared. More of the wives had a city or village background. Both husband and wife had a nonfarm background in enough of the cases to illustrate that a small minority with such a background have serious intentions to be commercial farmers. It may be added that some of the farm reared families lived in town for a period. For instance, 17 of the 55 families moved from a village or city residence to their present location. Most have farmed only in their present location. A few have farmed part-time previously in some other location. As indicated in the last two columns of Table 2, the group of 55 had been part-time farmers an average of nine years, in their present location, 8.4 years

TABLE 2.—Years Schooling of Operator, Place of Rearing of Man and Wife and Average Years as Part-time Farmer, Specified Groups, by Area, Ohio, 1954

Area	Operator, years in school	Place of Rearing								Avg. years	
		Farm		Nonfarm		Both farm	Mixed		Both nonfarm	PTF	This farm
		M	W	M	W		FM	FW			
	55 rated "progress" toward full-time farming										
N E. Ohio	10.9	12	12	4	4	10	2	2	2	12 9	12.1
S.E. Ohio	10 4	18	12	1	6	11	6	1	0	6.1	5 4
W. Ohio	11.9	17	15	3	5	13	4	2	1	8 6	8.3
Total or Average	11.0	47	39	8	15	34	12	5	3	9.0	8.4
	62 rated "established"										
N.E. Ohio	11.0	16	12	5	9	10	6	2	3	7 8	4.6
S E. Ohio	10.9	15	12	3	6	10	6	2	1	6.3	4.7
W. Ohio	11.8	19	16	4	7	13	5	2	2	6.4	4.9
Total or Average	11.3	50	40	12	23	33	16	6	6	6 8	4.7

The 62 cases rated "established" had farmed part-time about seven years and on the present farm about five years. The question may be raised at this point but not answered—why has the latter group made the most progress toward full-time commercial farming?

Excepting the time in military service, most of the farm operators considered in this study had previously lived in the immediate locality where they were farming in 1954. To illustrate, of the 62 "established" operators, 63 percent previously lived in the same township where now located, another 18 percent in the same county, 10 percent in adjoining county, three percent in a more distant Ohio county and the remaining six percent came from some other state. Most of these families are located in or close to the communities where either husband, wife, or both were reared and where they have family connections and friends.

VOCATIONAL AGRICULTURE AND 4-H CLUB WORK

About one-fourth of the operators rated "progress" had received high school training in vocational agriculture. Six other operators had contact with the vocational agriculture department through their children in school. Numerous operators and wives in this group reported association with 4-H club work, however, it was not always clear whether they had participated as members themselves or were reporting association through their childrens' participation.

Of the 62 operators rated "established" nearly half had experienced some agricultural training, either 4-H or vocational agriculture, in early years. Of the 44 families in this group still farming part-time, 15 of the operators had vocational agricultural training and 12 had participated in 4-H club work. A total of 19 had either one or both. Seventeen of the wives had participated in 4-H club work.

Of the 18 families farming full-time, six of the operators had high school training in vocational agriculture and six had participated in 4-H club work. A total of eight had either one or the other or both. Four wives in this group had participated in 4-H club work.

The fact that nearly half the total group of 62 operators had experienced some training in agriculture may partly explain their orientation toward farming. It did not definitely indicate a tendency to relinquish the nonfarm employment at an earlier point in the farming career.

G. I. ON-THE-FARM TRAINING

Military service in World War II with a consequent break in civilian employment influenced the careers of many young men who were prospective operators of both part-time and full-time farms. Some of these returned veterans found compensating advantages in the G. I. training programs, veterans loans, or other provisions of the veterans rehabilitation program. A unique factor of the training program was financial assistance, in the form of subsistence payments, to the veteran in training.

Among the 55 part-time farmers rated "progress" were 16 who experienced military service during World War II, serving a little over two years on the average. Nine participated fully in the G. I. on-the-farm training program. One attended some G. I. classes but was ineligible for subsistence payments because he continued to hold a regular nonfarm job, and two attended college with veterans assistance. Those who participated in the on-the-farm training program were enrolled for an average of about two and one-half years.

Nearly half (28) of the 62 farm operators who were classed as "established" were World War II veterans. Twenty had participated in the G. I. on-the-farm training program.[6] Of this 20, some 16 took a nonfarm job after the training period and compensation ceased. For most of these the level of farm income at the end of the training period

[6]Two others used their G. I. benefits to go to college and one took on-the-job training while employed in industry.

was still too low to satisfactorily meet living expenses and debt payments. By 1954, however, nine of the 20 were again farming full-time; but wives of four had taken nonfarm employment. In contrast, of 23 other operators who had started to farm since 1944 with no on-the-farming training, three were farming full-time in 1954, and two wives were working. (Seven other wives in this group had held nonfarm jobs the past few years.)

No significant difference existed in the size of farm business or in financial status in 1954 of those with military service followed by a period of G. I. training and those without. In effect, the G. I. benefits, financial and otherwise, plus the opportunity to farm full-time during the training period about offset the advantage of greater nonfarm earnings of those who had farmed part-time for a longer period.

Tenure Status—Land Owned and Rented. Most part-time farmers have title to part or all the land they operate. This is partly a matter of choice but is influenced to some extent by the hesitancy of land owners to rent land to operators who have outside employment. Renting was more important in Western Ohio—both in proportion of cases and in acreage.

As measured by average total acres farmed and by crop acres, the figures (Table 3) indicate that the group of 55 was operating what may be considered relatively small family-sized commercial farms (average 116 acres). It is significant that these averaged slightly larger than all Ohio farms—112.9 acres (1954 census). Also significant, the Eastern Ohio farms were rather low in crop acres. In the absence of extreme intensification these eastern Ohio operators face the preblem of increasing the acreage in crops, either on their present farms or by obtaining the use of additional land. Those Eastern Ohio operators in the group of 62 rated "established" had about double the crop acres of those rated "progress."

A further breakdown of the 62 operators (Table 3) compares those still part-time with those who were farming full-time in 1954. In Eastern Ohio little difference existed between the two groups in respect to average size of tract owned, the amount of land rented, or acres in crops. In Western Ohio both part-time and full-time operators own less acreage than those in Eastern Ohio but are renting in more land, particularly those now farming full-time. In fact, the latter were operating an average of 270 acres, of which 221 were rented, and with 227 acres in crops.

TABLE 3.—Tenure Status of Specified Groups of Operators Using Part-time Farming to Get Established in Full-time Farming, by Area, Ohio, 1954

Area		Type of Tenure			Average Acreage Operated			
		Full owner (No.)	Part owner (No.)	Full tenant (No.)	Owned	Rented	Total operated	Crop Acres
			55 operators rated 'progress					
N E Ohio		13	5	—	90 8	14 5	103 1	41 3
S E Ohio		14	3	—	114 0	16 4	129 3	40 2
W Ohio		10	5	5	52 9	60 8	113 7	85 3
Total		37	13	5	85 1	32 0	116 0	56 9
			62 operators rated established					
N E Ohio	(1)	6	7	0	111	30	141	95
	(2)	3	5	0	109	32	141	94
S E Ohio	(1)	7	5	1	139	14	153	79
	(2)	3	1	1	137	28	164	81
W Ohio	(1)	8	9	1	87	57	144	116
	(2)	1	1	3*	49	221	270	227
All Areas	(1)	21	21	2	113	36	149	79
	(2)	7	7	4	100	83	183	104
Total		28	28	6	107	50	157	86

(1) Those still working off the farm
(2) Now farming full time

*One operator who was tenant on farm where interviewed had just completed arrangements to purchase another farm

In all areas the average amount of land operated by the 62 "established" operators was well above the minimum of many full-time farms. As will be shown later, however, some of those in the "established group still holding a nonfarm job did not have an adequate size of farm business.

Purchase of Land. Forty-five of the 55 part-time farmers making "progress" toward full-time farming had purchased land (Table 4). Five in this group were tenants and seven had inherited some land. The average period since purchase was nearly 10 years, centering in 1944, which explains the relatively low average prices paid per farm or per acre. The average age of operator at time of purchase was 32 years. It may be noted that the average operator had owned his land for a longer period than he had farmed part-time.

Thirty-five used mortgage financing with maturities on original mortgage ranging from six months to 34.5 years. Most loans were amortized, providing for annual, semi-annual, monthly or even weekly payments; the latter two applied to half the loans. This type of repayment schedule is adapted to earnings from nonfarm sources and may encourage the retention of the nonfarm job. Individuals, banks, savings and loan and building and loan companies were the most frequently used sources of credit.

Of the 62 operators rated as "established" 54 had purchased land. Twenty-eight had owned real estate previous to the purchase of the present farm; farm real estate in 13 cases, urban real estate in 15 cases. Sale of such property helped to purchase the land now occupied. Some had made more than one removal from owned property before acquisition of their present holding. Six operators acquired their land in two separate tracts at different times. The foregoing represents some of the details of capital accumulation leading up to the purchase of land by these operators.

This group of operators averaged 32 years of age at the time of purchase of their present farm. Out of 54 purchasing land, 52 financed with one or more mortgages. There was no appreciable difference in mortgage financing between the operators still working away from home and those farming full-time.

Sources of real estate mortgage credit used by this group did not differ much from the sources used by the group rated "progress." Of the lenders, individuals led the list; 19 loans. Of these, eight were relatives, five were grantors from whom the land was purchased, and six were other individuals. Three relatives and two grantors took second mortgages. Other lenders in order of frequency were: commercial banks, 17; savings and loan and building and loan companies, 8; Farmers' Home Administration, 6; Federal Land Bank, 5; insurance companies, 2. In a few instances mortgage financing had been preceded by the use of a land contract; information is incomplete on this point. Six operators who were veterans had used G. I. insured loans.

The most significant difference between these two groups of operators is that those rated "established" purchased a larger acreage and assumed more debt than the group which was rated "progress."

TABLE 4.—Purchase of Land by Operators Rated "Progress" and "Established," by Areas, Ohio, 1954

Area	Number purchasing	Average acreage	Average Cost		Years since purchased	Age of operator when purchased	Mortgage*	
			Per farm	Per acre			Number	Average amount
			Operators rated progress toward full time farming					
N E Ohio	14	85 8	$ 7,124	$ 63	9	34 0	12	$4,742
S E Ohio	18	111 4	6 647	60	11 9	29 1	11	4,323
W Ohio	13	63 2	9,604	143	7 2	35 8	12	7,712
Total	45	91 6	$ 7,650	$ 84	9 6	32 4	35	$5,629
			Operators rated established					
N E Ohio	21	110 2	$10,919	$ 99	4 9	33 3	20	$7,578
S E Ohio	16	149 6	8 138	54	6 7	32 1	15	5,667
W Ohio	17	106 2	12,660	119	5 5	30 5	17	9,724
Total	54	120 7	$10,643	$ 88	5 7	31 9	52	$7,728

*Original mortgage at time of purchase

THE ROLE OF INHERITANCE IN THE ACQUISITION OF LAND

If a part-time farmer received a cash inheritance or urban property which was later sold or traded for the rural real estate, the value of such inheritance would not be revealed by the questions used in the general study. While inheritance of this kind may have been of great value to a few recipients it appeared to play a minor role in the way most part-time farmers acquired the land they were using when interviewed.

Deeds of transfer from a relative to seven of the 55 operators rated as having made "progress" toward full-time farming indicated some direct inheritance of part or all of the farm real estate they occupied. (Two had purchased part of their land.) The average size of unit inherited was 86 acres. The total inherited amounted to about 13 percent of the land owned by this group.

This does not preclude the possibility that some inheritances or gifts assisted in the purchase of real estate in other cases. Of the 45 families purchasing land only 35 had used mortgage financing. Of the 62 families rated as "established," only two of the 56 owning land had received it through gift or inheritance. The remaining 54 had purchased land, 52 using mortgage financing.

With this group of 62, specific questions were asked about inheritances and gifts. Twenty-two had received some assistance of this type, averaging $4,270 per recipient. This would amount to about $1,500 if averaged over the entire group of 62 operators.

Four of the 18 now farming full-time had received gifts or inheritance averaging $4,850, and ranging from $900 to $10,000. The average date of receipt of the inheritance was 14 years before the interview. This amount of inheritance would average out to less than $1,100 for the entire group now farming full-time.

The above supports the view that inheritance and gifts were of secondary importance in the accumulation of capital by most of these families. When such was received as well as the amount influenced its importance. Also, those rated as "established" had not, so far as was determined, been more favored in respect to inheritances than those who were rated "progress" toward full-time farming.

Fig. 1.—Nonfarm earnings often are used to modernize the dwelling. On this farm the house has been remodeled; now, the garage in the foreground is being built as the operator can find the time.

HOME CONVENIENCES—BUILDINGS

Have the families considered in this study sacrificed on living conditions in order to become established in farming? Which has been emphasized, improvement of the house, or of the barn and other service buildings?

First, there was no significant difference in the number or type of conveniences in the homes of the 55 rated as having made "progress" toward commercial full-time farming and those who were rated as "established." The same circumstances also prevailed in respect to age and condition of dwelling and condition of other buildings. Therefore, for sake of simplicity, the following discussion relates to the 62 cases rated as "established."

There was a slight tendency for the process of modernization of the home to be more complete on the full-time farms. But considering the number of cases this may be a random difference. Or, it may be an indication that in some cases nonfarm employment was not given up until certain home conveniences had been financed.

Home Conveniences. All 62 homes had been modernized to some extent. Much of this had been done by the present occupants. The following figures indicate the proportion of dwellings equipped with certain conveniences when visited in 1954:

Type of convenience	Operators now farming full-time		Operators still farming part-time	
	Number	Percent	Number	Percent
Central heating	10	56	23	53
Water under pressure	16	89	38	86
Electricity	18	100	44	100
Kitchen modernized*	16	89	37	84
Bath	14	78	29	65

*Kitchen modernization was measured by three factors: (1) running water under pressure, (2) either gas or electric cook stove, and mechanical refrigerator.

Type of construction and arrangement make it difficult to completely modernize some houses. This particularly applies to the installation of central heating and bath. Only two houses under 50 years of age did not have central heating.

Age of Dwellings. As near as could be determined, the average age of dwelling was 59 years with a range in age of four to about 140

years. In type of construction, 53 were wood frame, two frame and log, one brick, one concrete block, one stone, and four were combinations of frame, brick or block.

In general condition, 30 percent of the dwellings rated good; 37 percent, fair; 28 percent, poor; and five percent, very poor. In contrast, the general condition of barns and other buildings rated: 17 percent, good; 50 percent, fair; 30 percent, poor; and three percent, very poor.[7] The same proportion of both dwellings and other buildings (67%) was rated either fair or good.

EXPENDITURES FOR FARM AND HOME IMPROVEMENTS

Expenditures for improvements by the operators since occupancy of the real estate averaged $3,200 per farm for all 62 cases. Since such expenditures were reported by 53 cases (all but three if the tenant operators are excluded) the average was about $3,800 per farm reporting. These expenditures were those reported for materials used and for hired labor; since much family labor was used the value added to the property should be somewhat in excess of these figures.

The average expenditure for improvements for the 18 operators farming full-time in 1954 averaged somewhat higher than those still operating part-time. Those making such improvements in this group reported having spent an average of $4,700.

In 37 of the 53 cases reporting improvements, at least part of the expenditure was devoted to home facilities. In only seven cases were the improvements reported limited to the dwelling. There was no significant difference between the full-time and still part-time farms in respect to this item.

The financing of improvements helps to explain why these families as a whole have not reduced their debt obligations to a larger extent. For instance, 52 cases had assumed an original real estate mortgage debt averaging $7,728 per farm. In 1954 this mortgage debt had been reduced to $5,602, but other indebtedness brought the total average outstanding debt obligations up to $7,915 for those still farming part-time and $9,678 for those farming full-time in 1954. Considering the prevailing level of prices and realized income of these families, the tendency was to give priority to the purchase of home conveniences, farm equipment, and improvements, instead of more rapid reduction in the total debt obligations.

On the basis of the above observations it is concluded that as a general rule, family living conditions were not severely sacrificed in order to become established in farming.

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[7]This rating is an observation by the interviewer.

FINANCIAL POSITION IN 1954 OF FIVE GROUPS OF FARM OPERATORS

Dollar value is a common denominator by which to measure the status of part-time farm operators interested in becoming full-time farmers. Table 5 presents an assets-liability statement to show the financial position of the average operator in each of five groups.

The 55 cases rated "progress" are divided into three groups according to the amount of productive work provided by the farm business.[8] Those with least progress (group 1) operated a farm business which supplied less than 100 productive man work units. Those rated average progress (group 2) had a farm business supplying from 100-199 MWU.[9] Those classed most progress (group 3) had a farm business supplying 200 or more MWU. The 62 case-sample rated "established" constitutes two groups—the 44 still operating part-time (group 4) and the 18 now farming full-time (group 5).

On the asset side, no sharp distinction can be drawn, in respect to value of real estate owned, between those who have made the least progress toward full-time farming and those now farming full-time. The latter group averaged only 17 acres more land owned and the estimated current market value of it was even slightly less. As shown elsewhere, those farming full-time had expanded operations by renting in additional land.

A different situation applies to value of livestock, machinery, and feed and supplies. The build-up in these items accompanies progress toward full-time farming.

No significant difference existed between the five groups of operators in respect to value of motor vehicles, household goods and other property. These are listed to complete the picture of capital accumulation and do not distinguish between items used for production and for consumption. They do tend to emphasize that the level of expenditure

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[8]One productive man work unit was considered as the amount of work performed in a ten-hour day by an average worker with typical methods and equipment on the ordinary commercial farm. The number of man work units calculated for common units of farm production follow: crops (per acre)—corn, 1.00; wheat, .65; oats, .50; soybeans, .60; alfalfa, .65; other hay, .40 tobacco, 30.00 and garden produce, 10.00. Livestock (per head per year)—dairy cows, 12.00; dairy replacements, 2.00; ewes, .50; lambs, .80; beef cows, 1.50; beef heifers, calves and steers, 1.00; brood sows, 3.00 market hogs, .25; laying hens, .25, broilers, 1.60 per hundred head; and turkeys, 7.10 per hundred head.

[9]Hereinafter productive man work unit is abbreviated by MWU.

for certain purposes had no definite relationship to the size of the farming operations. The item, other personal property, is a catch-all to cover liquid assets, tools and equipment, and other personal property not directly used in the farming operations. A few owned a substantial amount of such property.

On the liability side, those who have gone to full-time farming are currently carrying the heaviest load of debt obligations. Although not showing up as more chattel debt, it may be that the purchase of more machinery has been given priority over the reduction in mortgage debt on real estate.

Although those farming full-time owned the most property, group (3) had the largest net worth. It must be concluded that the relative financial position of these five groups does not explain why some are still farming part-time and others are now full-time farmers.

Rate of Capital Accumulation. Getting ahead financially depends on accumulation of savings out of earnings, gain in capital value of things owned, and "windfalls" primarily inheritances and gifts.

So far as could be determined from the financial position when starting to farm part-time and the position in 1954, operators now farming full-time had accumulated capital at an average rate of $2,000 per year; those "established" but still part-time, $1,700 per year. This rate of financial progress has been accelerated by the inflationary trend in prices, particularly of real estate which, on the average, was purchased at 1944-45 prices. To a lesser extent the inflationary trend also favored those who are accumulating the additional personal property needed to farm full-time. Going in debt was good policy during the 1940's. A like period of deflation would have reversed the situation, as described above, and raise serious doubts about the advisability of using credit as freely as it was used.

Information on the rate of capital accumulation was incomplete for groups (1), (2), and (3), operators who were rated as making "progress" toward full-time farming. In general the information available indicated that progress was most for those who had bought the most land some years ago, those owning the most livestock and machinery and farming on a relatively extensive scale. This particularly applies to operators in group (3) who own an average of 123 acres, operate 203 acres and had 110 acres in crops in 1953.

Machinery Investment. As indicated in Table 5 the full-time operators have a greater investment in machinery and equipment. Because this is a major type of investment let us look at it through a further breakdown by type of farming area and acres in crops (Table 6).

In Western Ohio the group farming full-time had more than twice the machinery investment of those farming part-time; but this greater investment was nearly balanced by an increased acreage in crop land and the machinery investment per crop acre remained relatively low. This was not the case in Eastern Ohio where the step to full-time farming is generally made through intensification—more livestock, more machinery and equipment but with little change in acres in crops.

TABLE 5.—Average Financial Position of Specified Groups of Farm Operators, Ohio, 1954*

Item	Part-time Operators Rated "Progress"			Operators Rated "Established"	
	Least progress (1)	Average progress (2)	Most progress (3)	Still part-time (4)	Now full-time (5)
Number of cases	22	22	11	44	18
ASSETS:					
Farm real estate	$15,722	$12,663	$17,455	$15,373	$14,127
Other real estate	2,273	591	182	1,023	2,150
Personal Property:					
Livestock	1,340	1,570	2,909	2,753	3,587
Farm machinery	2,207	2,662	4,082	4,035	7,255
Feed & supplies	868	1,105	1,455	2,307	2,868
Automobiles & trucks	1,245	1,077	1,191	1,113	1,222
Household goods	2,095	1,868	2,045	2,098	2,067
Other	1,382	693	1,309	984	583
Total personal property	$ 9,137	$ 8,975	$12,991	$13,290	$17,582
Total property owned	$27,132	$22,229	$30,628	$29,686	$33,859
LIABILITIES:					
Real estate mortgage debt	$ 4,277	$ 4,841	$ 3,448	$ 4,550	$ 7,064
Other debt	621	1,231	745	1,973	1,857
Total debt	$ 4,891	$ 6,072	$ 4,193	$ 6,523	$ 8,921
NET WORTH	$22,241	$16,157	$26,435	$23,163	$24,938

*Method of estimating value for groups (1), (2), and (3): Real estate value estimated from the current tax valuation-sales price ratio of farm real estate applied to the tax valuation of property in each case. Livestock—estimated from market prices and quality of livestock. Farm machinery, motor vehicles, household goods, and other property—estimated new cost less depreciation. Liabilities of groups (1), (2), and (3) estimated from recorded debt and statements of respondents when obtained. All operators, groups (4) and (5) provided statements of assets and liabilities.

TABLE 6.—Average Investment in Machinery and Equipment by 18 Full-time and 44 Part-time Farm Operators, by Area, Ohio, 1954

Farming area	Average Investment			
	Farmers now full-time		Farmers still part-time	
	Per farm	Per crop acre	Per farm	Per crop acre
Northeastern	$6,967	$91.67	$4,957	$64.38
Southeastern	5,140	81.59	3,660	60.00
Western	9,900	51.30	4,092	44.48
All areas	$7,255	$69.76	$4,035	$51.08

The group of 55 operators rated "progress" owned machinery and equipment with a current value of nearly $2,800 on the average, or an investment of about $49 per crop acre harvested.

PATTERN OF LAND USE ON PART-TIME AND FULL-TIME FARMS

This is illustrated in detail by a comparison of the 99 farms still operated part-time and the 18 operated on a full-time basis in 1954 (Table 7). Because each of these groups is a composite of cases drawn from three types of farming areas, the resulting averages obscure some of the attending variations representative of different areas of the state. On the other hand the figures in Table 7 serve to bring out the following points.

(1) Those now farming full-time are operating more land (as shown elsewhere the difference is primarily rented land).

(2) The percentage of land in crops and meadow is practically the same for those part-time and those operating full-time.

(3) Those operating full-time have a slightly higher proportion of the land in cash grain crops, less in hay and pasture, and a little more in alfalfa. These are minor differences which may come from variations in the sample.

(4) The similarity in the pattern of land use in the three groups of farms supports the view that the nature of the land resources is the dominant factor governing how the land is utilized rather than the fact that the operators are farming part-time or full-time.

The above view is further supported by another reference to those in the group rated "progress" toward full-time farming. Those in the subgroup with least progress (less than 100 MWU per farm) had 35 percent of their land in crops; but those who had made more progress (100 to 199 MWU) and those with most progress (200 MWU or more) each had 54 percent of their land in crops, practically the same proportion as those who were rated "established," and those now farming full-time.

TABLE 7.—Average Acreage and Percentage of Farm Area in Particular Crops and Other Uses, 99 Percent and 18 Former Part-time Farms, Ohio, 1954

Use of land	Still Part-time					
	55 "Progress"		44 "Established"		18 formerly part-time	
	Acres	Percent	Acres	Percent	Acres	Percent
Total acres	116	100.0	143	100.0	189	100.0
Corn	16	13 8	25	17.5	33	17.5
Wheat	9	8.1	13	9.1	21	11.1
Oats	8	6.7	8	5.6	7	3.7
Soybeans	7	6.3	6	4.2	14	7.4
Alfalfa	4	3.2	5	3.5	8	4.2
Other hay	12	10.1	21	14.7	19	10.1
Other crops	1	1.2	1	0.7	2	1.1
Rotation pasture	8	6.3	17	11.9	15	7.9
Permanent pasture	25	21.4	27	18.9	35	18.5
Other land	26	22.7	20	14.0	28	14.8
Total cropland harvested	57	49.4	79	55.2	104	55.0

TYPE OF FARMING

In general, Northeastern Ohio is thought of as a dairy area, Southeastern Ohio as a general farming area and Western Ohio as lying within the corn belt area. To what extent are these area differences reflected in the combination of enterprises found on the farms visited in this study? Also, does the force of circumstances experienced by part-time farmers influence them to follow some particular type of farming?

Among the 55 farmers classed as having made "progress" toward full-time farming, 21 reported dairy products (and animals) as accounting for over half of gross farm sales. Twelve of these reported the dairy enterprise was responsible for at least three-fourths of the sales. Four

additional cases reported dairy as the major enterprise but it did not provide half the total gross sales. The dependence on the dairy enterprise was especially important in the eastern areas of the state.

Part-time farmers in Western Ohio were more frequently expanding operations through renting additional land for cash crops and general livestock. Nearly one-third of the operators reported cash crops as accounting for 50 percent or more of gross sales. Four others reported cash crops as responsible for the major part of gross farm sales.

That a strong tendency exists to conform rather closely to the dominant type of farming found in an area, both before and after going to full-time operation is shown by Table 8.

Of the thirty-seven Northeastern area cases, twenty were receiving at least half of the gross receipts from the dairy enterprise, with eleven operators reporting 75 percent of gross sales from that source. One part-time farmer had specialized temporarily in beef production with the intention to shift later to dairy. Five of the eight farming full-time in 1954 were specialized dairymen and all eight had a dairy herd.

Fig. 2.—Ohio part-time farmers develop enterprises suited to their type of farming area. Increasing productive employment through livestock enterprises is an important step in most cases where full-time farming is the goal.

TABLE 8.—Type of Farming* Operations of 117 Present and Former Part-time Farm Operators, by Area, Ohio, 1954

Type of farming followed	Northeast				Southeast				Western				All areas
	Number Operators				Number Operators				Number Operators				
	Pro-gress	Estab-lished	Full-time	Total	Pro-gress	Estab-lished	Full-time	Total	Pro-gress	Estab-lished	Full-time	Total	
Dairy (Specialized)†	2	4	5	11	8	2	1	11	2	2		4	26
Dairy–Poultry‡	2	1		3	3	1	1	5	1	1		2	10
Dairy–Hog‡	1		1	2						1		1	3
Dairy–Cash Crop‡	1	3		4		2		2	1	1	1	3	9
Dairy–General§	2		1	3	1			1	1	1		2	6
Cash Crop‖	2	3		5		2		2	7	7	3	17	24
Cash Crop–General§	2	1		3	1	1		2	4			4	9
Beef‖	1	1		2	2	1		3					5
Hogs‖	1			1	1	1		2	1	1		2	5
Poultry‖						1		1		2		2	3
Livestock**	2			2	3	1		4	3	1		4	10
General***			1	1		1	3	4		1	1	2	7
Total	16	13	8	37	19	13	5	37	20	18	5	43	117

*Each farm in the sample was typed by the order of importance of gross receipts arising from one or more enterprises.

†Specialized—75 percent or more of gross receipts from that enterprise.

‡Fifty percent or more gross receipts from listed enterprise, the second listed enterprise dominant over remainder.

§First listed enterprise of dominant importance of three or more but less than 50 percent of total gross receipts.

‖Fifty percent or more from listed enterprise.

**Two classes of livestock (other than dairy) accounted for 75 percent or more of total, no one over fifty percent.

***Four or more enterprises with no single one of outstanding importance.

Of the 37 farms contacted in the Southeastern Ohio area, five were operating full-time in 1954. Of the five two were dairy (one specialized); three were general farms—one giving first emphasis to dairying, one to poultry and one to cash crops. Some livestock enterprises were found on all the 37 farms.

Of the 43 Western Ohio farms contacted, five operators were farming full-time in 1954. Of the five, one was a dairy-cash crop, three were cash crop and one general. Seventeen of the 43 reported at least half of the gross sales were from cash crops, and four others reported crops as the major enterprise though accounting for less than half of the total sales.

Of the total 117 cases 48 were classed as receiving at least half of the gross farm receipts from the dairy enterprise, 26 were receiving at least three-fourths of the farm receipts from that source. Thus there was a strong inclination to rely on dairying both during and after the period of nonfarm employment.

Fig. 3.—Dairying is frequently used in all areas; hog and other meat animal production is more prevalent in Western Ohio.

TYPE OF NONFARM WORK

In general terms, about half the operators (and wives when working) were or had been employed in industry as skilled or semi-skilled workmen. About one-fourth were wage or salaried employees in commercial business, trades, services and government occupations. A fourth were self-employed—being independent contractors—in the building trades for example, or operating their own business.

Presumably, the self-employed could adjust their activities to meet the requirements of the farm better than those dependent on the policy of an employer. Actually, this group reported as many days on the nonfarm job as those employed for wages.

There was some tendency for those farming on a larger scale either to do work which did not have a rigid and constant daily routine or where the hours worked per day were less than average. Examples: independent salesmen, milk truck drivers, contracting carpenter. On the other hand the outstanding circumstance is that most part-time farmers are wage earners who are obliged to work 40 hours per week or more in order to hold the nonfarm job.

TABLE 9.—Nonfarm Employment of Specified Groups of Part-time Farmers as Related to the Scale of Farming Operations

Type of Employment	55 Rated "Progress" Toward Full-time Farming			Established	Total
	Least progress	Average progress	Most progress		
No. of Cases	22	22	11	62	117
Percent of Cases—by Type of Employment					
Industrial	64	63	37	44	50
Transportation	13	5	36	18	16
Construction and Building Trades	13	17	9	11	13
Salesmen or Local Business	—	5	9	10	7
Mining and Oil Industry	5	5	—	5	4
Lumbering	—		9	1	2
Teaching	5	5	—	1	3
Other				10*	5
Total	100	100	100	100	100

*Includes· printer, janitor, two A. S. C. committeemen, waterworks employee, highway employee

The 55 part-time farmers classed as "progress" toward commercial scale farming had worked at their present off-farm job for an average of nearly nine years, ranging from less than one to twenty-eight years. Those with industry jobs had been employed at the same job for nearly ten years. There was no apparent relationship between degree of progress toward full-time farming and length of time at the present nonfarm job.

Among the 62 operators regarded as "established" in commercial scale farming, those still employed had held that job for an average of five years, ranging from one to twenty-one years. Those now farming full-time had held their last nonfarm job for an average of five years, ranging from one to twenty years.

TRAVEL TO THE NONFARM JOB

Most nonfarm employment involves some travel to and from the job. Although a few part-time farmers reported rider pools and trading with neighbors, most traveled to work by private automobile.

The 55 operators rated "progress" toward full-time farming traveled an average of 15 miles one way to work. The group of 62 "established" traveled an average of 14 miles one way, with a range from one mile or less up to 50 miles. These averages conform closely to the experiences drawn from the general study of part-time farmers which indicate that to get to the nonfarm job under Ohio conditions, farmers sometimes travel up to 60 miles or more, but most travel less than 30 and average about 13 miles.

The 18 who were farming full-time in 1954 had traveled an average of 15 miles when working. Therefore, distance to the nonfarm job was not of special significance in the decision to farm full-time.

The Ohio part-time farmers reported spending an average of about 30 minutes one way to work, ranging from less than ten minutes to over one and a half hours enroute.

AVAILABLE FAMILY LABOR AND USE OF HIRED LABOR

What is the potential labor supply on part-time farms? Of the 55 families rated "progress" toward full-time farming, the family labor force in 20 cases consisted of the husband and wife only, if children under 12 years of age are not considered as part of the farm labor force. In the remaining 35 cases the potential farm labor force was augmented by a total of 22 teen-aged sons, 22 teen-aged daughters, five adult males and six adult females.

If we count each of the additional family members, including the wife, as being equivalent in work to one-half a man unit and the operator as one man unit, the potential available labor supply would average 2.0 man equivalents per farm. It should be emphasized that this is merely a measure of the potential labor supply but important particularly from the standpoint of chore labor performed by the wife and children. As will be indicated later, somewhat less than this potential was actually used in farm work, and except for emergencies probably would not be so employed.

What relationships existed between the potential family labor force and size of farm business? To determine this these 55 farms were classified by the productive man work units (man-days of labor per year) provided by the farm business:[10]

(1) Farms with less than 100 MWU
(2) Farms with 100 to 199 MWU
(3) Farms with 200 or more MWU

The same average potential family labor force was present in each of the three groups of farms as classified above. Although some exceptions existed, the information assembled on this group of 55 farms indicates that size of family has very little to do with the size of farm business carried on by these part-time farmers.

More extra hired labor and more custom work was hired by the operators in classes (1) and (2) than by operators in class (3). This would be partially explained by the fact that more machinery was owned by the operators in class (3). Also, the family labor force was more fully utilized on the class (3) farms.

The circumstances just discussed were very nearly repeated on the 62 farms where the operator was rated "established."

Of the 44 families with the operator still engaged in nonfarm employment, the family labor supply in 24 cases consisted of the husband and wife only In the remaining 20 families the potential family labor force included 19 teen-aged sons and nine teen-aged daughters. The average was 1.8 man equivalents per farm. Fourteen (32%) of the 44 operators reported using some occasional hired labor mostly in the planting and harvesting season and in emergencies to help with the chores.

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[10]A productive man work unit is the amount of labor performed by an average man in a 10-hour day for production of crops, livestock, and livestock products, using the methods, practices, and equipment necessary to allow for typical efficiency. See footnote 7 page 28 for further explanation.

Of the 18 families farming full-time, the family labor force in 12 cases consisted of the husband and wife only. The other six families contained three teen-aged boys, three teen-aged girls, and one adult male. This averages out as 1.7 man equivalents per farm. Seven (37%) of the 18 reported using some occasional hired labor.

It is concluded that the size of the potential family labor force did not appear to be the principal deciding factor in determining when a family started to farm full-time, or as has been mentioned, the scale of farming operations conducted on a part-time basis. On the other hand, the utilization of the potential labor force varied widely from farm to farm. On some farms one or more teen-aged sons may have provided a large share of the seasonal labor; in a few cases a wife performed some field work as well as chore labor; in other cases a father or other relative helped; in some cases the operator carried most of the load, reporting as much as 80 to 90 hours per week total labor time spent on the farm and nonfarm jobs during the crop season.

TIME SPENT IN NONFARM EMPLOYMENT, IN FARM WORK AND SIZE OF FARM BUSINESS

Employment five days a week, 50 weeks a year totals 250 days. This is fairly typical of the work schedule of most regular employees in business and industry. Eight hours a day- 40 hours a week—is similarly the common pattern in respect to hours worked. But this does not hold for all types of employment. Teaching school, driving a school bus or milk truck, or work in the building trades as examples would depart from this pattern.

Table 10 indicates the average time reported spent at nonfarm work by the operators of different sizes of part-time farms. The farm operators in group (3) worked more days off the farm and also conducted a larger farm business than the operators in groups (1) and (2). Group (3) operators more often held jobs involving fewer hours per day but more days per year which made it possible to spend more time farming.

Days Farm Work Reported. From estimates of time spent by different family members, the total days of labor was computed for each farm in groups (1), (2) and (3). This included all labor for production and care of crops, and livestock (productive labor) and for maintenance and improvement of property—which is not directly productive. Let us compare the total days of labor reported with the days productive labor provided by the farm business.

Table 10.—Average Days of Nonfarm Employment, Reported Time in Farm Work,* and Productive Labor Supplied by the Farm Business, Designated Groups of Part-time Farmers, Ohio, 1954

Status of Operator	No. of cases	Days non-farm work, operator	10-hour days of farm work by—			Total days productive labor (MWU)†
			Operator	Other family members	Total	
	(A)	(B)	(C)	(D)	(E)	(F)
		Those Rated "Progress"				
(1) Less than 100 MWU	22	223	121	64	185	69
(2) 100-199 MWU	22	218	130	90	220	137
(3) 200 or more MWU	11	232	150	168	318	258
		Those Rated "Established"				
(4) Still with nonfarm job	44	238	§	§	§	188
(5) Now farming full-time	18	208‡	§	§	§	254

*All time reported spent during the year in farm work by operator and family, converted to 10-hour days.

†Ten-hour days of required labor, using typical practices, to care for the crops, livestock, and livestock products produced on these farms. See footnote 7 page 28 for definition of productive man work units.

‡In last full year before starting to farm full-time.

§Data not available or item does not apply.

As the size of farm business increases, the amount of labor supplied by both the part-time operator and other family members increases. This is illustrated by columns (C) and (D) in Table 10. Disregarding age and sex of workers, the total time reported adds up to 185, 220, and 318 ten-hour days on group (1), (2) and (3) farms respectively (column E). The latter group (3) averaged only 72 percent more family labor input than group (1) farms. In contrast, the total days productive labor supplied by the farm business ranged from 69 to 258 or a 274 percent difference between groups (1) and (3) farms. The foregoing comparison indicates more effective use of labor associated with the larger farm business.

Total Days Productive Labor. Depending to some extent on the type of farming, a full-time one-man farm should provide at least 200 days of productive labor, the remaining time would be available for maintenance work, improvement or other activities. Most family commercial farms have a size of business providing from 250 to 500 productive MWU. What a man may accomplish in a day or a year varies

with the individual depending on his energy, management, amount of equipment, layout of buildings, fields, etc. These differences appeared to be at least as characteristic of part-time farm operators as of farmers in general.

Referring to the last column in Table 10, the farm business of group (1) operators provided about one-third of the productive MWU considered desirable for a minimum full-time farm; group (2) farms had reached the half-way mark and group (3) farms provided as many MWU as group (5) farms now operated full-time. Then, why are group (3) operators (also group 4) still working away from home? We must look further for the answer. Two relevant comments are: (a) labor input is but one measure of size of business; (b) it may bear an indefintic relationship to both gross and net income, particularly to the latter.

PRODUCTIVE LABOR SUPPLIED BY CROPS AND LIVESTOCK, DIFFERENT AREAS

In making this study it was presumed that differences found in particular types of farming areas might have a major influence on the kind and size of business conducted by part-time farmers. Although these differences were found to be of secondary importance in respect to the process of getting established in full-time farming, they are of sufficient importance to be taken into account as has been done in Tables 11 and 12.

Do part-time farmers concentrate their efforts on crop or livestock production? How much is this influenced by the type of farming area where the farm is located? At what point in size of business do families start to farm full-time in different areas? Table 11 was constructed to help answer these questions in terms of productive man work units provided by the farm business.

First, no significant average difference existed in the emphasis placed on crops or livestock by operators now farming full-time and those still part-time. Second, operators located in Eastern Ohio gave emphasis to livestock production which accounted for three-fourths or more of the productive labor. In Western Ohio some operators concentrated on livestock but the stronger tendency was to maintain about a 50-50 balance between crops and livestock as measured by the productive MWU, supplied by the farm business. Third, in all areas some had started to farm full-time with a size of business less than the minimum considered necessary to provide full-time productive employment.

TABLE 11.—Productive Man Work Units Supplied by the Farm Where Families Had Made Different Degrees of Progress Toward Full-time Farming, by Areas, Ohio, 1954

Area	No. cases	Average MWU Provided by			Percent		Range in MWU per farm
		Crops	Livestock	Total	Crops	Livestock	
	(A) Part time with Progress' Toward Full time Farming						
N E Ohio	16	34	88	122	28	72	16-327
S E Ohio	19	23	115	138	17	83	33-280
W Ohio	20	64	79	143	45	55	39-337
Total	55	41	94	135	30	70	16 337
	(B) Still Farming Part-time but Established						
N E Ohio	13	49	153	202	24	76	59-360
S E Ohio	13	38	111	149	25	75	52-281
W Ohio	18	62	146	208	30	70	62-475
Total	44	51	137	188	27	73	52 475
	(C) Former Part-time Now Farming Full time						
N E Ohio	8	56	197	247	23	77	142-440
S E Ohio	5	40	198	238	17	83	99 398
W Ohio	5	137	145	282	49	51	192 526
Total	18	74	180	254	29	71	99-526

With some this was a temporary situation, a period used to make improvements and get set for further expansion. For personal reasons a few probably would continue to farm full-time on a limited scale.

As previously mentioned, some were continuing to work away from home after the farm business had been built up well beyond the point, as measured by the amount of productive labor, necessary to provide full-time employment for one man. As indicated in the last column, Table 11, examples of this were found in all three types of farming areas, with the largest average size of business in Western and the smallest in Southeastern Ohio.

The point is further illustrated in Table 12 that in respect to size of business, as measured by productive MWU, the farms studied were fairly well distributed between the three types of farming areas.

TABLE 12.—Distribution of Sample of 55 Part-time Farmers Rated "Progress" Toward Full-time Farming, by Type of Farming Area and Size of Business, Ohio, 1954

	Size of Business as Measured by Productive MWU							
	Less than 100		100–199		200 or more		Total	
	No. of cases	Avg. MWU	No. of cases	Avg. MWU	No. of cases	Avg. MWU	No. of cases	Avg. MWU
N E Ohio	6	69	8	126	2	266	16	122
S E Ohio	8	71	6	150	5	236	19	138
W Ohio	8	67	8	138	4	281	20	143
Total	22	69	22	137	11	258	55	135

THE IMPORTANCE OF LIVESTOCK IN BUILDING A FARM BUSINESS

Farmers build size of business either (1) by enlarging their scale of operations, or (2) by some process of intensification. Both apply to those farming part-time with the intention of becoming full-time farmers.

Table 13 has been prepared to show how the amount and kind of livestock kept is related to the stage of progress toward full-time farming. Some differences show up by type of farming areas which are illustrated by the group of farmers rated "established." In both Northeastern and Southeastern Ohio, it may be recalled, those operators still farming part-time were operating essentially the same acreage, total and in crops, as those farming full-time. But those full-time were keeping more livestock, particularly dairy cattle and were getting a greater percentage of their farm receipts from sale of livestock and livestock products. As a whole this larger business was a move both toward more intensive enterprises and an increase in numbers of livestock kept, although it should be noted that a few more chickens were kept by part-time farmers in Northeastern and Western Ohio than those farming full-time.

In Western Ohio the dominant tendency, of those farming full-time was to achieve size of business by increasing the acreage in crops and to a lesser extent by producing more meat animals—beef cattle, hogs and sheep, a move toward extensive rather than intensive use of land. The last column in Table 13 indicates the rather sharp contrast between these Eastern and Western Ohio operators, who were farming

full-time, in respect to the percentage of farm receipts received from livestock and livestock products. On the other hand, Western Ohio operators, "established" but still part-time, were operating on about the same scale and type of farming as those in Eastern Ohio.

Operators rated "progress" toward full-time farming exhibited the same tendencies by type of farming areas as the operators rated "established" but still farming part-time. Groups (1) and (2) of those rated "progress" serve to illustrate that the build-up of livestock on these farms is less than half that of the group now farming full-time. Group (3) of those rated "progress" is very similar in type and numbers of livestock as the group rated "established" but still farming part-time.

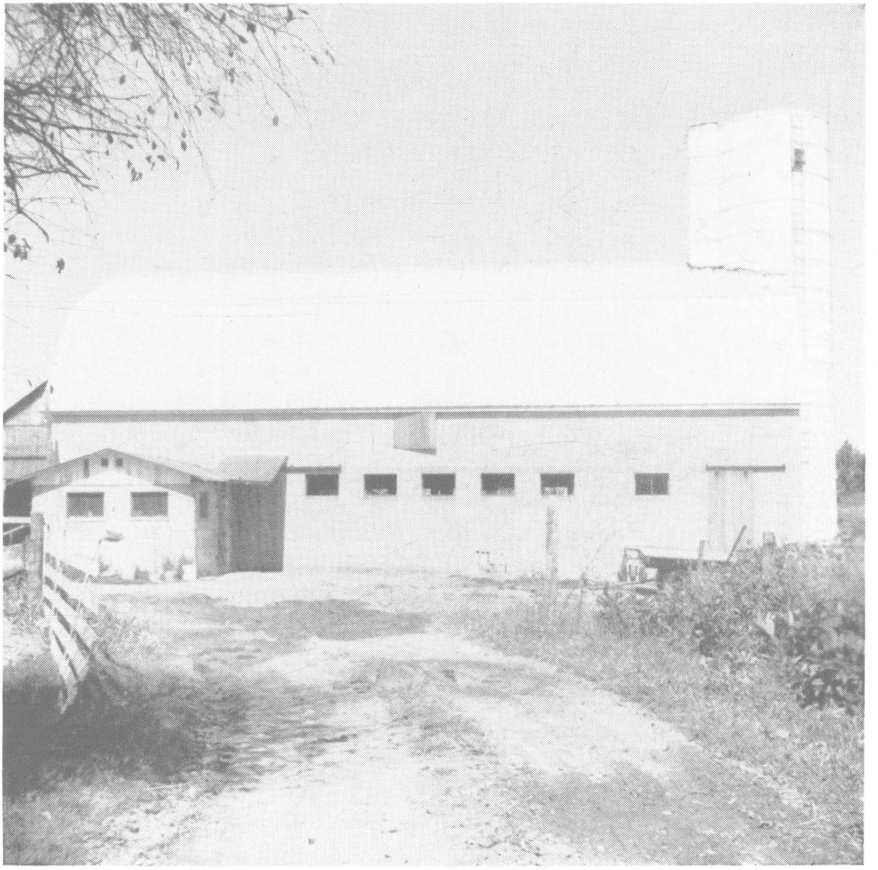


Fig. 4.—Some operators continue the nonfarm job until their program of building improvement has been completed. On this farm a new barn has been built.

TABLE 13.—Average Numbers of Foundation Livestock, Designated Groups of Operators in Different Stages of Progress Toward Full-time Farming, Ohio, 1954

Area and Status of farm business	Class of Livestock					Percent of receipts from livestock and livestock products
	Dairy cows and heifers	Beef cows and heifers	Brood sows	Ewes	Hens	
	Operators Rated Established					
N E Ohio						
Still part time	14 2	1 7	1 0	5 6	81	72
Now full time	20 1	—	1 1	—	68	82
S E Ohio						
Still part-time	6 3	5 0	1 9	0 2	71	75
Now full time	16 0	8 2	8	8 6	121	79
W Ohio						
Still part-time	9 3	3 7	1 6	7 2	76	64
Now full time	7 0	8 0	6 8	16 4	14	26
All Areas						
Still part time	9 9	3 4	1 5	4 6	76	68
Now full time	15 6	4 5	2 6	6 9	67	58
	Operators Rated Progress					
All Areas						
(1) Less than 100 MWU	2 4	5 0	0 9	1 1	20	55
(2) 100 to 199 MWU	6 3	0 9	0 9	2 0	94	78
(3) 200 or more MWU	9 2	2 6	1 8	6 0	74	74

EXPENDABLE INCOME, DIFFERENT GROUPS OF PART-TIME FARMERS

As part-time farmers increase the size of their farm business, in the average situation, a smaller but offsetting decline occurs in the nonfarm earnings. Thus, they handle a larger gross amount of money. But this does not necessarily mean a larger net income available for family living and savings.

What is the trend in the total expendable income of families as they progress toward full-time farming? In the absence of complete records over a period of years for individual families, which would answer this question, let us look at the records of groups of operators who are in different stages of progress.

Table 14 has been constructed to show the average income position of five groups of farm operators after deduction of certain kinds of expenses: (a) cash expenses of farm operation (interest excepted); (b) travel expenses associated with the nonfarm job; (c) interest payments on outstanding debt obligations (not all debt was incurred for production purposes but information is not available to make a separation.); (d) the important but less obvious costs of depreciation on real estate improvements, machinery and equipment; (e) annual payments on outstanding debt obligations.

The above accounting procedure is followed to illustrate how these different kinds of expenses would influence the relative income position of these five groups of families. It may be noted that groups (3) and (4) are quite similar in the amount of progress toward full-time farming. They have been kept separate throughout this study primarily because groups (4) and (5) were initially selected as operators with enough land and capital to farm full-time.

Following the above sequence of accounting for expenses, let us look at the average income position of four groups farming part-time on different levels of operation and the fifth group which has started to farm full-time (Table 14).

In terms of gross income from all sources the larger the farming operations the larger the income (item 1). The families farming full-time handled more money than any other group. Looking at gross and net farm income items (3) and (4), two points are of particular significance. First, all groups farming part-time had high cash costs relative to gross farm income. Second, a substantial gap existed in either the gross or net farm receipts of groups (3) and (4), both farming part-time on a rather extensive scale, and group (5) farming full-time. Group (3) illustrates this point best. Both in acreage farmed or in productive MWU group (3) was operating on a scale typical of many full-time family farms. But after paying the cash farm expenses the net cash farm receipts averaged about $1,500 as contrasted with $4,100 for group (5) farming full-time.

Next, let us look at the gross nonfarm earnings and take account of the expense of travel to the nonfarm job (items 5 to 7).

Gross (or net) nonfarm earnings tended to decline as the size of farm business increased. Those farming part-time on an extensive scale, groups (3) and (4), reported as many days at nonfarm work as those farming less (groups 1 and 2). On the other hand, groups (3) and (4) operators more often had employment which took fewer hours per day, paid less, and allowed more time for farm work. As a result, only a few hundred dollars difference existed in the combined balance of

TABLE 14.—Estimated Average Gross and Net Receipts, Farm and Nonfarm, and Expendable Income, Specified Groups of Farm Operators, Ohio, 1954

Item	Part-time Operators Rated "Progress"			Operators Rated "Established"	
	Least progress	Average progress	Most progress	Still part-time	Now full-time
	(1)	(2)	(3)	(4)	(5)
Number of cases	22	22	11	44	18
(1) Total gross income, both farm and nonfarm	$6,627	$7,002	$8,140	$8,093	$9,152
(2) Gross farm receipts	2,247	3,063	5,031	4,729	7,868
(3) Less cash farm expenses*	1,597	2,045	3,507	3,020	3,741
(4) Net cash farm receipts	$ 650	$1,018	$1,524	$1,709	$4,127
(5) Gross nonfarm receipts	$4,380	$3,939	$3,109	$3,364	$1,284
(6) Less travel expenses	290	283	302	309	50
(7) Balance, nonfarm receipts	$4,090	$3,656	$2,807	$3,055	$1,234
(8) Balance, farm and nonfarm receipts	$4,740	$4,674	$4,331	$4,764	$5,361
(9) Less interest on debt	245	304	210	326	446
(10) Balance	$4,495	$4,370	$4,121	$4,438	$4,915
(11) Less depreciation—buildings, fences, machinery	399	574	776	764	1,054
(12) Balance	$4,096	$3,796	$3,345	$3,674	$3,861
(13) Less debt payments	492	733	478	961	1,089
(14) Balance	$3,604	$3,063	$2,867	$2,713	$2,772

*Not including interest payments or depreciation charges For purposes of analysis these items are deducted later See items (9) and (11), above table.

farm and nonfarm receipts of the four groups of part-time farm operators (item 8). Those farming full-time (group 5) had slightly more income, after cash expense deductions, than any of the groups farming part-time. It should be noted that this is based on 1953 prices. It should also be noted that those farming full-time had some nonfarm income. A few wives were working and several operators did machine custom work, or had other occasional employment, but not enough to class them as part-time farmers, as defined for this study.

Interest payments averaged the most for the group farming full-time. Typically operators in this group had purchased more machinery and generally used more of their available funds to expand the farm

business and less for debt reduction. But after payment of interest, item (9) those farming full-time were still in the best income position—about $400 better off than group (1), those farming the least.

Depreciation charges on machinery and real estate improvements in one sense are unavoidable because some things wear out. On the other hand, in a period of rising prices property may appreciate in market value enough to partially or fully cancel out the loss in capital value because of physical deterioration. The cost of depreciation would fall heaviest on the group farming full-time because it owned the most property subject to depreciation. The lightest depreciation charges fell on group (1), those farming the least and owning the smallest amount of machinery and equipment. Group (1) had the largest balance of income (item 12) remaining after deduction of depreciation costs. Those farming full-time stood second.

The last deduction, item 13, is for annual payments on debt. Debt payments might be considered as enforced savings. As previously mentioned, those farming full-time had the highest average annual rate of capital accumulation. They had the largest debt obligations. After annual debt payments the balance of income remaining was not greatly different for those farming full-time and groups (2), (3), and (4). Group (1), those farming the least, had the largest balance. This illustrates that expansion of farming operations may be at the price of having less income available for other purposes.

From the standpoint of getting established in full-time farming perhaps the most important point of all is that the average part-time farmer may find it difficult to keep expanding his farm business profitably past the point achieved by groups (3) and (4) without sacrificing an equivalent amount or more in nonfarm earnings. This is a problem of the limitations of human energy and management and the use made of the resources of the entire family.

Among the numerous cases visited who had the goal of becoming full-time farmers, only 18 had achieved that status at the time of interview. How did these families bridge the gap to full-time farming?

Some did so by sacrificing family income. With some of these the income sacrifice was temporary until the farm business could be expanded.

Some wives worked away from home to keep the family income at a satisfactory level during the period of expansion. Or, some wives had done a substantial part of the farm work while the husband continued on the nonfarm job. Or, other family members, usually one or more teen-aged sons, supplied the necessary farm labor. Or, in some

instances the operator worked unusually long hours. Some individuals may have the energy to do this; perhaps, more do not. Another factor is the variation in management and efficiency in the use of labor.

MANAGERIAL ABILITY

Combining the resources of the farm and family for efficient production requires managerial ability. What kind of farm enterprises are best adapted to the resources available? Which jobs should be done first? How should they be done? Should additional investment be made in machinery or fertilizer—better livestock?—buildings and improvements?—or in renting additional land?

While it is evident that there is wide variation from one operator to another in "managerial ability," this variation is not subject to measurement as such. However, if we assume that a better manager will get more out of his reseources than a poorer one, we may get some indications of managerial ability from the relationship of outputs to inputs on the farm. A comparison between groups (4) and (5) illustrates the point.

It was noted above that the 18 operators farming full-time had a larger volume of business than those still farming part-time. It was also noted that their cash expenses had not increased proportionately as much as gross farm receipts. Cash farm expenses took about two-thirds of the gross farm income for the 44 (group 4) still farming part-time compared to less than half for the 18 now full-time (Table 14).

Crop yields per acre reported by the 18 now full-time consistently averaged higher than those reported by the 44 operators still farming part-time.[11] While numerous things—better land, better seed, more fertilizer, more timely work, etc.—could have contributed to this difference in average yields, it appears that the 18 full-time were getting a larger output per unit of land input.

The only livestock enterprise present in both groups in sufficient numbers for reliable analysis was dairy. Twenty-nine of the 44 still farming part-time and 15 of the 18 now full-time reported milk sales. How do the two groups compare in efficiency with respect to this enterprise? Milk sales per cow averaged nearly $100.00 higher for the 18 now farming full-time than for the 44 still operating part-time. The average sales per cow were $378 and $279 respectively. The higher sales figure could result either from more production, and sales per cow, or a higher price for the product (more milk sales as grade A).

[11]Average yields reported by the two groups (the first figure is for the 18 full-time—the second for the 44 still part-time) were as follows: corn, 68.9-61.7; wheat, 28.8-26.9; oats, 47.6-40.5; soybeans, 19.7-18.5.

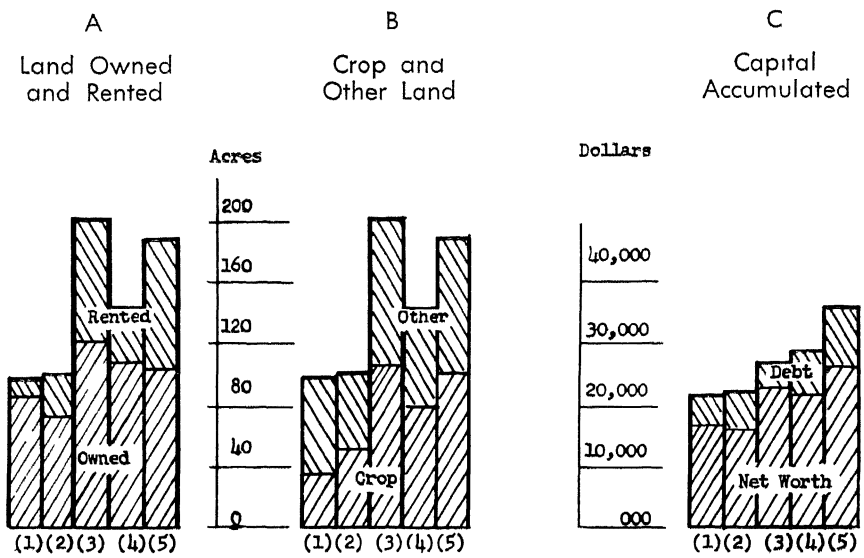
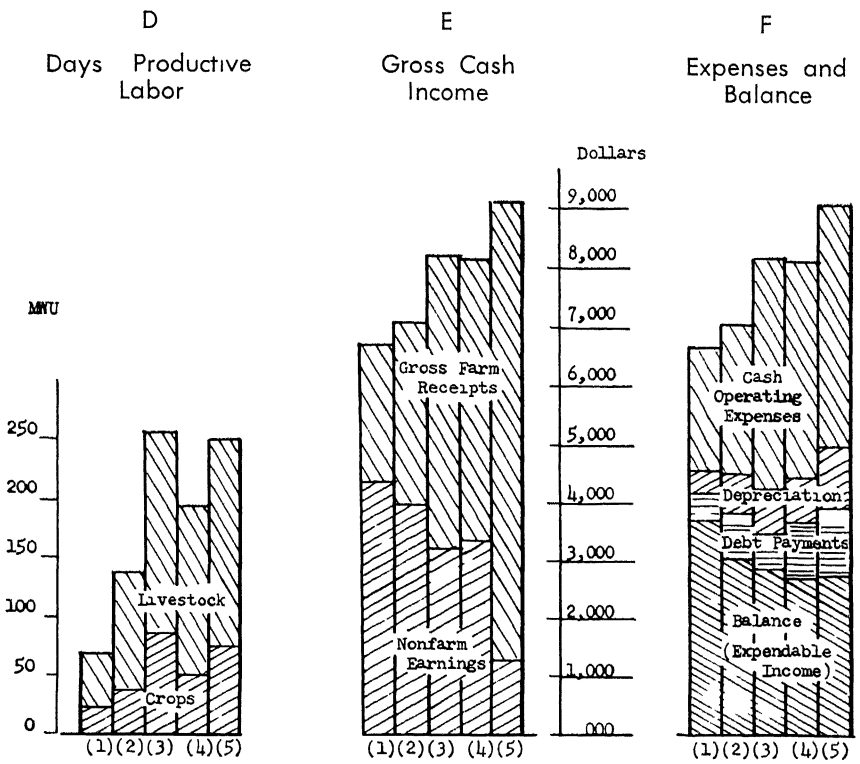


Chart 1.—Six Measures of Progress Toward Full-Time Farming

Each of the bars, (1) to (4), under A, B, C, D, E and F represents the average situation of a group of part-time farm operators who have the expressed goal of farming full-time; group (5) has already attained that status. These comparisons help explain why many have paused at some stage short of their goal and a minority have attained it.

As much land is owned and rented A by groups (3) to (5) as by many full-time farmers. In comparison, operators in groups (1) and (2) are short on land—particularly crop land B—for profitable full-time farm operation (unless some intensive enterprise is developed). The amount of land operated by groups (1) and (2) is significant because these operators are as old and have been farming as long as operators in groups (3), (4), and (5). Group (5), operators now farming full-time, have accumulated capital at the fastest rate; also, have the highest indebtedness C. The average operator in all five groups has the capital to farm as a tenant or part-owner if all resources were directed to that objective. To most of these operators, however, the preferred alternative has been to retain a



nonfarm job, have a fairly high equity in a small to medium sized farm, operated part-time, and to defer the move to full-time farming—the expressed objective.

Groups (3), (4) and (5) have enough crops and livestock to approximate productive full-time employment for one man or more D. Then, why have groups (3) and (4) continued farming part-time while (5) has gone to full-time farming? A partial answer is that the nonfarm earnings declined as the farm earnings increased E. The full impact of this is illustrated when production expenses are deducted F. Groups (3) and (4) particularly illustrate that some part-time farmers build up the gross farm business but their net returns do not increase proportionately. Group (5) was more successful in bridging this gap in net income. Why? One apparent answer is superior management as reflected in superior crop yields and returns from livestock. Since, by these measures operators in groups (1) to (4) were only average in management, the current income advantage favored sustaining the nonfarm earnings and a continuation of farming part-time on a scale suited to the energy and management of the operating family.

Insofar as there was no appreciable difference in output-input relationships of these part-time operators compared with the average of all Ohio farmers, it would appear that those who have successfully made the transition to full-time farming exhibit some superior abilities.

Various other considerations may defer the shift to full-time farming. With the passage of time, as the operator becomes older he often has less energy to expand the farm business, and is more reluctant to incur debt; his son or sons may express a desire to carry on and take over on the farm; the years spent in nonfarm work may result in personal associations not easily severed; and in a senority rating that gives security in the nonfarm job.

The foregoing comparisons support the conclusion that using part-time farming to get established in full-time farming is a practical and expedient method for a minority who start with that intention. For more the course of least resistance is to maintain the family income by continuing the nonfarm employment. Even though the intention remains the change to full-time farming is deferred.

Expendable income realized from different sized farming operations plus outside employment was fairly uniform. It did not show a consistent current income advantage to those who were farming part-time on an extensive scale or to those who had gone to full-time farming. This indicates that the decision to farm full-time may come from non-economic reasons—a strong personal desire to farm, attitude toward the nonfarm job, health, and other personal considerations.

SOME CASE HISTORIES EN ROUTE TO FULL-TIME FARMING GOAL

The above analysis has presented as averages the situations of groups of part-time farmers attempting to move to full-time farm operation. Since each situation is a little different from another and insofar as some important events in the process cannot be averaged, the following case histories may be considered as illutrative. All had expressed their intent to become full-time farmers. The first two cases are illustrative of a group from the general sample who had not attained enough success to be rated in the "progress" group discussed above.

LITTLE SUCCESS — (Failure)

At the time of interview, after some years as part-time operators, the following two cases could show little progress toward their original goal. When consideration is given to the agricultural resources controlled, financial position, age, and apparent managerial ability, their appears little chance of success. In terms of their original goal—they have failed.

(1) Mr. "A", 47 years of age, was interviewed on his six-acre Western Ohio "farm." He was farm reared and had worked as a hired hand until the late 1930's when he secured a farm equipment (Farm Security) loan and began to farm as a tenant. He farmed one farm for two years and moved to another. He was farming with horses and told of "bad luck" in getting his work done—an example he cited was having a mare that foaled at corn planting time. When he had to leave that farm, he could not find another to rent, his loan was delinquent, so his chattels were sold.

During the war years, Mr. "A" lived and worked in town. In 1946 he purchased six acres of land on which he built a five-room house, small barn, and some other out-buildings. A building materials supply company extended credit until the completed buildings could be mortgaged.

Mr. "A" began to purchase used farm equipment with the intent to rent additional land and to perform custom operations on other farms. These plans did not materialize, he was unable either to rent more land or obtain custom work (a neighbor called him undependable).

Most of the time his machinery, tillage, hay and corn harvesting equipment, is idle. In the year preceding the interview, Mr. "A's" "farm" was all in pasture except for a small garden and one acre in corn. He started that year with one cow, two dairy calves, four pigs, and 50 baby chicks. During the year both calves and two of the pigs died. Because of vermin and disease, the 50 chicks resulted in only ten laying hens. His farm business totaled less than 20 productive man work units; production was entirely for home use.

Mortgages on the real estate have been renewed at $2,500. Recorded chattel debt totaling $2,100 was mostly to equipment dealers and personal finance companies. Indicated net worth was about $2,500, and rate of capital accumulation since part-time farming was negative. As a result of the recurring financial crises, Mrs. "A" has also secured nonfarm employment.

(2) Mr. "B", 36 years of age at the time of interview, had been a part-time farmer for three years in Eastern Ohio. Both Mr. and Mrs. "B" were farm reared. They moved to the present farm from a rented rural residence. Their goal was to own and operate a 240-250 acre dairy farm. They have three daughters and one son.

The farm operations of Mr. "B" in the year of interview included the 31 acres he owns plus ten acres of rented crop land. When he paid $4,000 for his real estate, Mr. "B" gave a mortgage for $2,000 which was still in force. He then began to purchase equipment, planning to

do some custom work and to rent additional land. His line of equipment, in addition to a tractor and common tillage tools, included a mower, side delivery rake, baler and corn picker. He also had half interest in a manure spreader. Most of his equipment was purchased new at a cost of nearly $7,000. Since the barn was small and in poor condition, most of the above equipment was standing outside all year.

In the year preceding interview, Mr. "B's" farm business, both crops and livestock, totaled less than 70 MWU. He had three grade dairy cows, two brood sows from which he raised eight pigs, and about a dozen chickens. Gross farm products sales were about $200; custom work receipts, $600. As a result of a back injury, Mr. "B" can work only part of the time; his wife clerks in a store. Their nonfarm income was almost $4,500 in the previous year.

Chattel debt of over $3,000, added to the real estate debt, almost equalled the family equity in the total farm investment. Considering the rate of depreciation that would have to be applied to his equipment with such care, the generally poor condition of the buildings, and the quality of the livestock kept, it is very doubtful if the acquisition and operation of the part-time farm have contributed to the net worth of this family.

With the indicated level of managerial ability, and past rate of capital accumulation, the goal of ownership of a large dairy farm will not soon be attained—certainly not in the few years he has anticipated.

PROGRESS TOWARD FULL-TIME FARMING GOAL

(3) Mr. "C" now operates an 80-acre cash crop farm in Western Ohio. Both Mr. and Mrs. "C" are college graduates; neither was farm reared. At the time of interview Mr. "C" was 41 years of age and had been a part-time farmer for seven years.

The "C" family purchased the farm primarily for a rural home in which to rear their family. In 1953 they had four children ranging from 3 to 13 years of age. During the first three years on the farm Mr. "C" rented out the crop land and kept just a few livestock for family use. When he became dissatisfied with the work of the operator, who also rented other farms, he began to get equipment to operate the farm himself. His efforts have been so successful that his new goal is to add another 80 acres and operate a full-time grain and livestock farm.

In the year preceding interview the farm provided about 90 man work units, mostly crops. The limited livestock enterprises were primarily for home use. Gross farm sales amounting to nearly $8,000 together with $6,000 of nonfarm income have enabled this family to

accumulate capital rapidly in recent years. In addition to the real estate, for which he paid $18,000, he has a nearly complete line of farm equipment. Combining is the only machine work hired. The total family farm and home assets estimated at about $32,000, relative to indebtedness of $5,000 would indicate substantial progress in accumulating resources to farm on a full-time basis.

(4) Mr. "G", age 37, operates as a part-time farmer the 156-acre dairy farm he owns in Eastern Ohio. The part-time route to full-time farming for this family, which began in 1940, was interrupted by military service and resumed in 1946. He did not use the G. I. on-the-farm training program, preferring the higher cash income from his non-farm job.

Mr. "G", son of a farmer-carpenter was reared on a 60-acre part-time farm. His wife was also farm reared. This couple when married in 1936 stated that their net worth after paying the preacher was $28. They lived in a furnished apartment for a time, then purchased a lot and built their own house. After this sold for $1,500 more than it cost, they purchased a 40-acre farm for $2,500. This farm was sold for $3,300 when Mr. "G" entered the armed services. When he returned to civilian life, in addition to ownership of their household goods, they had cash savings of $4,000.

The "G" family paid $3,000 down on the present farm. Buildings, fences, and facilities were generally poor; the purchase price was $6,000 —or $38 per acre. The balance of the purchase price was borrowed from a local bank. Mr. "G" started to acquire machinery, to build up a dairy herd, and improve the real estate while continuing to work at an industrial plant located about four miles from the farm.

Since purchase of this real estate the family has remodeled the house, rebuilt the barn, added a milk house and milking parlor, rebuilt fences and tiled some land. Total cost of the improvements was estimated at about $12,000. A new pipeline milker, completing the facilities for grade A milk, was installed the day preceding interview.

In addition to the 156 acres owned, the "G" family rents a total of 80 acres in three different tracts. In 1953 they harvested crops from 76 acres. Ten good grade and two registered Holstein cows with six heifers comprise his livestock program. His farm business totals nearly 200 MWU. Gross sales in the year preceding interview were $4,500.

The only hired labor was custom baling of hay. The family labor force consisted of Mr. and Mrs. "G" and a 14-year-old son. Two other children were under ten years of age.

At the time of interview the "G" family had assets of over $32,000 and liabilities of about $100. Their average rate of capital accumulation is about $2,000 a year.

Their future plans were to obtain additional equipment, construct a trench silo, and expand the dairy herd to 30 cows. Mr. "G" plans to work off the farm only two more years. If he doubles his herd, increasing his productive MWU to over 300, with the current rate of milk production, he should be able to increase gross sales to the level he anticipates will yield a satisfactory income. They have demonstrated that it is possible for a couple willing to work toward the goal, with managerial competence, to succeed without substantial financial assistance.

(5) Mr. "D" operates 172 acres as a part-time farm in an Eastern Ohio area. Forty-eight years of age at the time of interview, Mr. "D" has been a part-time farmer since 1935. Mr. "D" and his wife were farm reared; both attended high school. He has held his present nonfarm job for 25 years except for periods of temporary unemployment in the 1930's. It was during such a period of unemployment that Mr. "D" decided to seek the security of a farm—planning to farm full-time.

In 1935 he purchased a farm of 108 acres for $3,500, paying $500 down. He began farming with used equipment. Along with the farming he returned for occasional work in a steel mill whenever he was recalled. He thought of the nonfarm work as being supplemental and used the income to reduce indebtedness and purchase better equipment.

During World War II the nonfarm job at times required 70 hours of work a week. He continued to farm but shifted from a dairy to beef enterprise. In 1950 an additional 64 acres was purchased for $8,000. In 1953 Mr. "D" harvested crops from 75 acres. His beef enterprise, primarily a feeding operation of 25-30 head a year, rounds out his current farming program. The farm business totals about 80 MWU; gross farm income is about $6,000.

At the time of interview his indebtedness of less than $4,000 was covered by assets of about $31,000. His capital accumulation and size of unit would have enabled him to farm full-time.

In response to the question of when he planned to farm full-time, Mr. "D" stated that he "may" farm full-time in the future, but "now seems like a poor time to quit the mill." His nonfarm income was about $6,000 a year and "with 25 years of senority may be that income is more secure than the farm."

The period of time over which Mr. "D" has operated as a part-time farmer was a particularly favorable one for accumulating capital, especially with extensive use of credit. Inflation of the prices of owned

resources has so boosted values to give Mr. "D" an average rate of capital accumulation of about $1,500 a year. Yet the time in process was sufficiently long that the nonfarm job appeared more secure than the income from the farm. Would he have fared so well if he had started at another time?

FORMER PART-TIME FARMERS—NOW FULL-TIME OPERATORS

(6) Mr. "E" was 42 years of age when he began to farm full-time in 1945. He was nine years of age when he came to the United States with his immigrant father. While attending school he helped on the rented part-time farm operated by his father who was employed in a steel mill. At age 15 Mr. "E" completed elementary school and started to work in the steel mill. Mrs. "E", the daughter of foreign born parents, was reared in a mill town where her father worked.

When the "E's" were married they first lived in a rented house in town until 1931 when they moved to a rented farm. Mr. "E" borrowed enough money to purchase bred heifers and continued to work until his dairy herd came into production. He also began to purchase the farm on a land contract. Then they discovered they had T.B. reactors in the herd. After the cattle were sold at a loss he was still in debt to the bank. He borrowed additional money to buy more cattle, but the price of milk declined so he could not meet the payments on his notes. After talking with the banker, he signed additional chattel mortgages covering his household goods, and agreed to assign his entire milk check to the bank to apply against his debts. In 1933, when the bank was pressed for cash, the entire debt was foreclosed. He also lost the farm.

In the fall of 1933, Mr. "E" was again employed part-time in the steel mill, when he moved to a 136-acre farm on a one-third share arrangement, with the landlord owning the equipment and livestock. He farmed there until 1940 when that farm sold. Along with his irregular work in the steel mill, he cared for a dairy herd and sold truck crops.

When that farm sold he moved to his present 103-acre farm for which he paid $1,500, seven hundred of which he borrowed from a relative. He refuses to use bank credit again. The 103-acre tract had no buildings and was practically unused land. He built a tool shed in which the family lived while he built a house. He was now employed regularly and used his spare time for improvements of the real estate. The family cleared some of the brush land, fertilized heavily, and grew truck crops for sale in the local market. The wife helped farm and marketed the produce while he worked in the mill.

After the house was completed, the tool shed was converted to a dairy barn and they began to build up a dairy herd. He purchased both new and used materials for construction and performed most of the labor himself. The full set of farm buildings constructed since 1940 cost an estimated $15,000 in materials.

Mr. "E" at the time of interview had assets of over $40,000 against liabilities of only $300. Since 1933 he has added to his net worth at an average rate of about $2,000 annually.

At the time of interview his 216 MWU of farm work were supplemented by custom work, which added about $1,000 of income to his $6,000 gross from crop and livestock sales.

The case of Mr. "E" illustrates the importance of the time at which an operator starts the part-time route, and the adverse forces that may impede his progress. This family today looks back on their accomplishments with a great deal of pride; both man and wife contributed hard work to their success.

(7) In 1946, Mr. "F" was 21 years of age, married, father of a one-year-old son, and 20 percent disabled after two years of military service. He wanted to farm.

Mr. "F" had been reared on his father's 160-acre Western Ohio crop and livestock farm consisting of 80 acres owned and 80 more rented. Mr. "F" completed one year of 4-H work, but no vocational agriculture in his high school.

Mrs. "F" was not a farm girl, though raised in a rural area, where her father was a truck driver.

In the spring of 1946, when Mr. "F" returned from military service, his principal assets were: (1) His strong desire to farm; (2) His rearing and early experience on farms; (3) His wife—who shared his goal and ambition to farm; (4) Prospects of Veterans' assistance. His net worth was probably less than $1,000.

The first few months after returning to civilian life, Mr. "F" worked for the highway department, while living with his wife and son in a furnished apartment in the county seat town. Mr. "F" was not satisfied with either his work or the thought of living in town.

In the fall of 1946 he took a job as school janitor in a good farm land area. Along with his salary of $3,000 a year, a house was provided for his use. He was permitted to hire some additional labor at the school and so at times his wife worked there also—adding another $400 to $500 a year to the family income.

The first year in the rural community Mr. "F" began buying and repairing pieces of use farm equipment. The following spring he was able to cash rent 80 acres of land near the school. He had equipment now to do his own tillage work and used custom operators for harvesting. Again the next year he farmed the rented 80 acres. He made good crops.

In most areas where crop-share renting is more prevalent, farm owners are reluctant to rent to operators who spend time at another job off the farm. In these two years, Mr. "F" "proved himself" in that community. The following year he was able to rent 120 acres more. For three seasons he farmed the 200 acres along with his job at the school.

The sixth winter he worked at the nonfarm job only half the year. That spring he was able to rent 200 acres of additional land and at that point, Mr. "F" ceased to be a part-time farmer. He now operated 400 acres and had acquired a line of equipment to handle such an acreage. He attended Veterans' School. As the original pieces of equipment wore out they were replaced with new ones; and other items were added as his finances would permit.

For two years, Mr. "F" was a tenant farmer on the 400 acres of land. In the spring of 1954 he had an opportunity to move toward ownership. With a Farmers' Home Administration loan he was able to buy 100 acres of the land he had been operating. He continued to rent the remaining 300 acres.

Mr. "F" is starting to build up a beef herd, beginning with heifers; and to develop a flock of sheep to utilize some of the rougher land he operates.

The family are proud of their accomplishments. In addition to the assets enumerated above, Mr. "F" had certainly demonstrated managerial ability considerably above the average. He produces good crops, uses recommended practices and fertilizes at rates generally above the average for that area. His farm is located in an area that comprises some of the best agricultural land in the state though his is not the best farm in the area.

In the year interviewed, Mr. "F's" farm covered about 250 MWU. He plans to further increase livestock production. Gross farm sales were about $23,000. Since 1946, when this family began to move into farming, their total nonfarm revenue from work and subsistence payments has been $26,700. At the time of interview, he had command of a $40,000 investment, and a net worth of over $21,000. This indicates an average rate of capital accumulation in excess of $2,500 a year.

APPENDIX

Estimates of Gross Receipts

Farm receipts: so far as obtainable, based on respondent's estimate of cash receipts from crops, livestock, and livestock products; otherwise based on estimates of the physical quantities sold and average farm prices, 1953.

Nonfarm earnings: each respondent was asked to identify earnings in 1953 within seven ranges of income from less than $1,000 up to $10,000 or more.

Method of Estimating Expenses

Taxes and insurance: calculated at one percent of the value of farm real estate, livestock, machinery, feed and supplies, and one-half the value of motor vehicles, and further substantiated by actual tax valuations of land and buildings owned by 55 operators.

APPENDIX TABLE 1.—Estimated Average Expenses Per Farm, Five Groups of Operators With Different Degrees of Progress Toward Full-time Farming, 1954

Item	Part-time Operators Rated "Progress"			Operators Rated "Established"	
	Least progress	Average progress	Most progress	Still part-time	Now full-time
	(1)	(2)	(3)	(4)	(5)
Number of cases	22	22	11	44	18
EXPENSES					
Taxes and insurance	$ 241	$ 210	$ 296	$ 280	$ 311
Fuel and oil	158	239	495	356	468
Seeds	70	106	220	158	208
Purchased feed, fertilizer, lime	472	779	1,441	1,200	1,400
Machinery repair	220	266	408	422	727
Building and fence repair	178	154	184	171	164
Depreciation—machinery, and real estate improvements	399	574	776	764	1,054
Hired labor and custom work	96	126	124	194	147
Miscellaneous	162	165	339	239	316
Interest on debt	245	304	210	326	446
Total	$2,241	$2,923	$4,493	$4,110	$5,241

Fuel and oil: $4.50 per acre in crops; an average cost based on Ohio farm account records.

Seeds: estimated at $2.00 per crop acre.

Purchased feed, fertilizer, and lime: based on estimates made by respondents.

Machinery repair and depreciation: each at 10 percent of inventory value of machinery owned.

Building and fence repair: estimated at $150 per farm.

Depreciation on real estate improvements: based on one-half the estimated value of real estate owned depreciated over a 40-year term. Estimated value was established in 55 cases from tax valuations of land and buildings adjusted to level of market value; in 62 cases repondent placed value on property.

Hired labor and custom work: as reported by respondents.

Miscellaneous expenses: based on farm account records at a flat rate of $1.67 per acre to cover farm share of cost of electricity, automobile use, spray materials, veterinary fees and cash rentals.

Travel expense to and from the nonfarm job: five cents per mile of travel.